MONDAY WEEK 14 _____ MATH PRACTICE

Name

1. A blue whale is the largest animal on Earth. This creature can grow to five feet more than three times the length of a reticulated python. Together, their lengths equal 145 ft. How long is the whale?

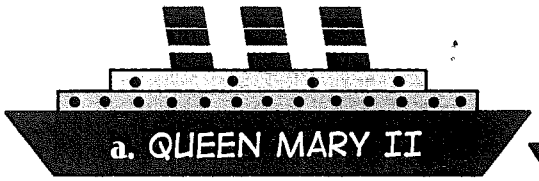
2. Evaluate: $6(3)^{-3}$

3. The largest finger painting on record has an area of 5,100 ft^2. Which of these could be its dimensions?
   a. 189 ft long, 39 ft wide
   b. 170 ft long, 30 ft wide
   c. 85 ft long, 60 ft wide
   d. 101 ft long, 50 ft wide

4. What is the coefficient of **x**?
   $y + 12x + 6x^2 - 8$

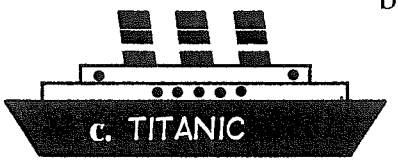
5. The *Queen Elizabeth* was the largest passenger ocean liner when it was built in 1955. The *Queen Mary II*, built in 2005, surpassed the *Queen Elizabeth* in length by 101 feet. The *Titanic* was one-third the length of the *Queen Mary II*. The sum of the lengths of all three ships is 2,540 feet.

   Give the length of each ship.



a._____

b._____



c._____

TUESDAY WEEK 14 _____ MATH PRACTICE

Name

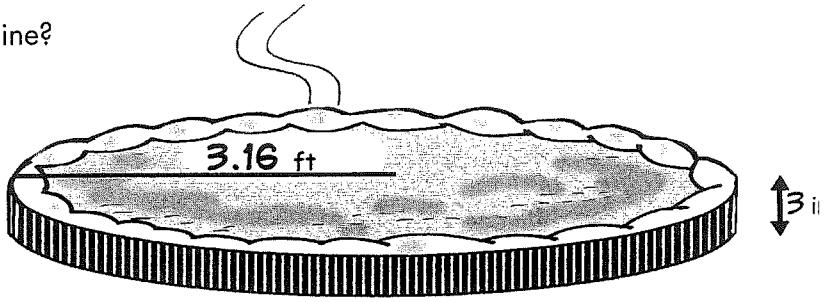
1. Evaluate: $\frac{(-6)(-7)}{-3}$

2. Choose the expression to match the words.
   the difference between a number cubed and three times another number is equal to seventy-seven
   - ○ $x^3 - 3x = 77$
   - ○ $3x - 77 = x^3$
   - ○ $x^3 - 3y = 77$

3. Is the graph of this equation a straight line?
   $3y = x^2 - 1$

4. Add or subtract the expressions.
   a) $10^3 + 3^3 =$
   b) $3\sqrt[4]{x^4} - 6\sqrt[4]{x^4}$
   c) $6\sqrt{3} + \sqrt{3}$

5. According to the *Guinness Book of Records*, the largest pumpkin pie weighed 418 lbs. Use the information in the diagram to calculate its volume.



WEDNESDAY WEEK 14 — MATH PRACTICE

Name _____

1. Circle the correct solution. $\frac{1}{3}p = \frac{2}{9}$

$p = \frac{2}{27}$ $p = \frac{1}{3}$ $p = \frac{2}{3}$

2. The world's longest model train is 2,763 inches long. Would it stretch around the perimeter of a backyard that is 84 feet wide and 122 feet long?

3. Simplify: $\frac{1}{2}(y - 10) \geq x(x + 5)$

4. Which shows a correct simplification?

$(6p^2)(p^4)(q) = 6q^6 + pq$

$(6p^2)(p^4)(q) = 6p^6q$

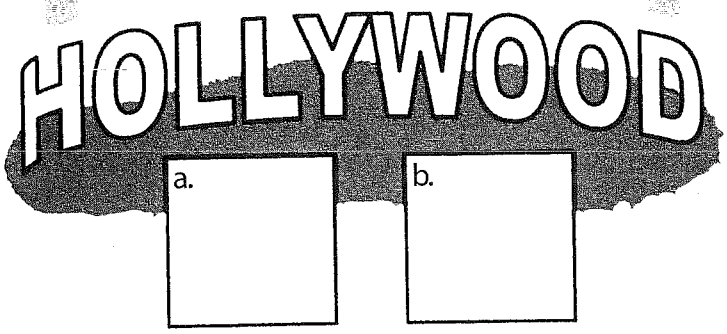
$(6p^2)(p^4)(q) = 6p^8 + p^4q + pq$

$(6p^2)(p^4)(q) = 6pq^6$

5. The Hollywood sign in Los Angeles, California, is one of the most famous large signs in the world. Each letter is 45 feet tall.

a. What is the height of the letters in meters?

b. One letter of the alphabet is drawn at random. What is the probability that it will be one of the letters on the sign?

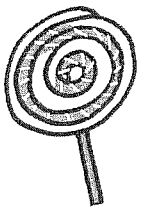


a. _____ b. _____

THURSDAY WEEK 14 — MATH PRACTICE

Name _____

1. The biggest lollipop on record was approximately 6.5 feet wide and 10 feet tall. It was about 9 inches thick. Find its approximate surface area.



2. Simplify: $\sqrt{36 \cdot 8}$

3. Evaluate for $a = \frac{1}{3}$; $b = \frac{2}{5}$; $c = \frac{1}{4}$

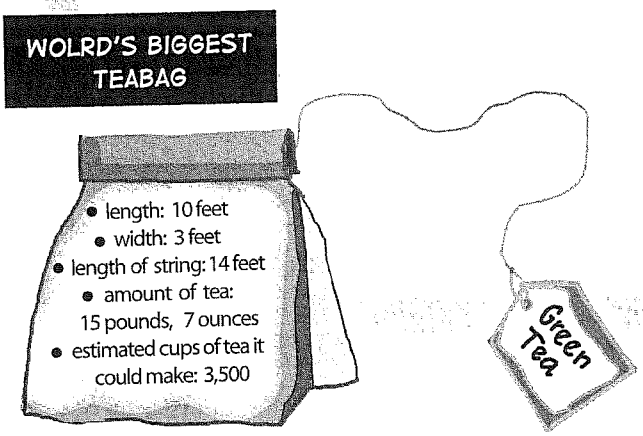
$a(b + c)$

4. The variables **x** and **y** are each > 0. In all three expressions, **x** has the same value and **y** has the same value. Choose the expression with the greatest value.

○ $(x + y)^2$ ○ $(x + y) + x$ ○ $\frac{(x - y)^5}{(x - y)^3}$

5. a. Approximately how much of this tea would it take to make one cup of tea?

b. Write a ratio that compares the length of the teabag to the length including the string.



(HAS ANYONE SEEN THE WORLD'S LARGEST TEA CUP?)

1. A group of friends set out to make the world's largest ball of aluminum foil. After 92 days of collecting foil and adding it to the ball, their creation weighed 1,196 pounds. If they added to the ball at the same rate each day, on what day did the ball weigh 637 pounds?

2. State the slope and y-intercept for this equation.

$$y = 3x + 4$$

3. Solve for x if $y = -7$:

$$y^2 + 10y + 9 = 4x + 4$$

4. Write T (true) or F (false) for each statement.

___ If $a < b$, then $a + c < b + c$.

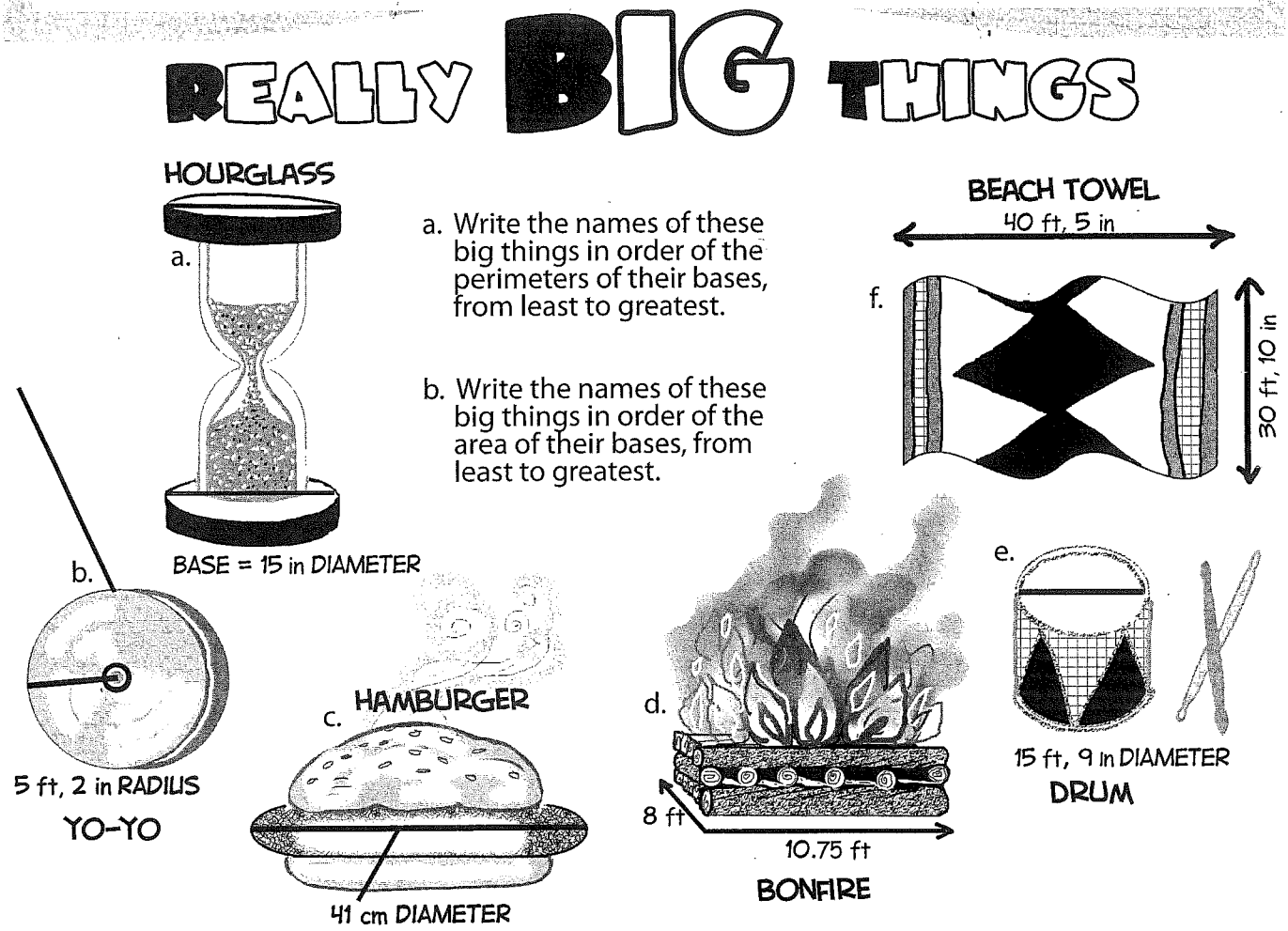
___ If $a > b$, then $a + c > b + c$.

___ If $c > 0$ and $a > b$, then $ac > bc$.

___ If $c < 0$ and $a > b$, then $ac > bc$.

5. Challenge Problem

Some people love the challenge of making record-sized things. Pictured below are representations of the world's largest hourglass, yo-yo, burger, bonfire, drum, and beach towel. Pay attention to the measurements that will help you figure out the size of the base for each gigantic creation.



a. Write the names of these big things in order of the perimeters of their bases, from least to greatest.

b. Write the names of these big things in order of the area of their bases, from least to greatest.